

REMARKS

The Examiner objected to claims 1-13, 30-33 and 40-48.

The Examiner rejected claims 1-13, 30-33 and 40-48 under 35 U.S.C. § 101.

The Examiner rejected claims 1-13 and 30-33 under 35 U.S.C. § 112, second paragraph.

The amendment herein reflects a telephonic interview between Applicants' representative and the Examiner on December 19, 2006 in which the Examiner suggested how the claims could be amended to overcome the the § 101 and § 112 rejections. The amendment herein reflects the Examiner's suggestions.

Applicants respectfully traverse the claim objections, the § 101 rejections, and the § 112 rejections with the following arguments.

Claim Objections

The Examiner objected to claims 1-13, 30-33 and 40-48.

The Examiner argues:

“Claims 1-13,30-33,40-48 are objected to because of the following informalities: As per claim 1, "the form" (line 6) should be --a form--; "the probability" (line 10) should be --a probability-- for proper antecedent basis.

As per **claim 30**, "the form" (line 11) should be --a form--; "the probability" (line15) should be --a probability-- for proper antecedent basis.

As per **claims 31-32**, --wherein said method-- should be inserted before "further"(line 1) to clearly identify that structural/functional relationship among the elements of the claims.

As per **claim 40**, "the form" (lines 4-5) should be --a form--; "the probability" (lines9-10) should be --a probability-- for proper antecedent basis.

As per **claims 2-13,31-33,41-48**, the claims are also objected to for incorporating the above errors into the respective claims by claims dependency.”

In response, Applicants have amended claims 1, 30-32, and 40 in accordance with the Examiner’s suggestions.

Accordingly, Applicants respectfully request that the objection to claims 1-13, 30-33 and 40-48 be withdrawn.

35 U.S.C. § 101

The Examiner rejected claims 1-13, 30-33 and 40-48 under 35 U.S.C. § 101.

The Examiner argues:

“**Claims 1-13,30-33,40-48** are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility, wherein the claims are directed to mathematical expressions without having practical application (i.e., the characteristics modeling is not being applied to any system/method so as to produce a useful, concrete, tangible result)(see State Street, 149 F. 3d at 1373-74; Wamerdam, 33 F. 3d at 1360, 31 USPQ2d at 1759). In addition, the steps of providing as recited in claims 1,7-13,30 does not cause the method/program product to do anything (i.e., does not model the characteristics as recited in the preamble). Furthermore, although claims 10-12,46-48 further define the "characteristics" as being as electrical characteristics, including denoting capacitance at a node of the domain, and voltage applied at the node, the claims as a whole are still directed to mathematical expressions without having practical application as discussed above, since they failed to produce a useful, concrete, tangible result...

Claims 40-48 are also rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, wherein the "model" is not directed to any one of the statutory classes invention (i.e., machine, process, manufacture or composition of matter) but is merely directed to a data structure per se, wherein data structure per se not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer (see Wamerdam, 33 F.3d at 1361, 31 USPQ2d at 1760). In order to be statutory, the claimed data structures must define any structural and functional interrelationships between the data structure and other claimed aspect of the invention which permit the data structure's functionality to be realized.”

In response, Applicants have amended the claims such that the claims recite a useful, concrete, tangible result. In particular:

(1) Claims 1 and 30 recite: “storing the PDF and the subsidiary equations in the at least one computer-readable memory device, wherein the base equation, the PDF, and the subsidiary equations are adapted to be accessed from the at least one memory device for usage in determining C.”;

(2) Claims 4 and 31 recite: “outputting the calculated value of C to an output device”;

(3) Claims 5 and 32 recite: “outputting the determined performance characteristic to an output device”.

In addition, claims 40-48 no longer claim a model, but rather claims a “computer program product comprising a model therein, said model configured to be used by a computer readable program code adapted to be executed on a processor for implementing a method that uses the model for modeling a characteristic C that is distributed within a domain”.

Accordingly, Applicants respectfully request that the rejection of claims 1-13, 30-33 and 40-48 under 35 U.S.C. § 101 be withdrawn.

35 U.S.C. § 112, Second Paragraph

The Examiner rejected claims 1-13 and 30-33 under 35 U.S.C. § 112, second paragraph.

The Examiner argues:

“Claims 1-13,30-33 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements/steps/structural cooperative relationships of elements, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted elements/steps/structural cooperative relationships of elements are: how the characteristics that is distributed within the domain are modeled, as recited in the preamble of the claims, since the steps of the claims merely "provides" the base equation, the probability density function, and the subsidiary equations, without actually generating the model of the characteristics, based in some ways on the recited steps.”

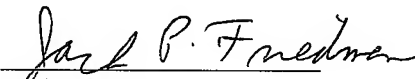
In response, Applicants have amended claims 1-5 and 30-32 to replace “providing” with such language as “storing” and “generating”, and to add the language “outputting”.

Accordingly, Applicants respectfully request that the rejection of claims 1-13 and 30-33 under 35 U.S.C. § 112, second paragraph be withdrawn.

CONCLUSION

Based on the preceding arguments, Applicants respectfully believe that all pending claims and the entire application meet the acceptance criteria for allowance and therefore request favorable action. If the Examiner believes that anything further would be helpful to place the application in better condition for allowance, Applicants invites the Examiner to contact Applicants' representative at the telephone number listed below. The Director is hereby authorized to charge and/or credit Deposit Account 09-0456.

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